

A REGULATORY PERSPECTIVE ON
ENERGY EFFICIENCY

Beth O'Donnell
Executive Director
Kentucky Public Service Commission

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Good morning. On behalf of Chairman Mark David Goss and Commissioner John Clay, I would like to thank you for this opportunity to share the Kentucky Public Service Commission's perspective on energy efficiency.

The organizers and sponsors of this conference deserve to be commended for focusing attention on this important subject. The Kentucky PSC is a long-standing proponent of energy conservation and energy efficiency.

The title of this conference suggests that we should view energy efficiency as a fifth fuel – on an equal footing with the other four. Actually, one could view energy efficiency as sharing some of the best attributes of each of the other four fuels.

It is abundant and relatively inexpensive – like coal.

It creates little or no solid waste – like natural gas.

It produces no air emissions – like nuclear energy.

And it is inexhaustible – just like the sun and other renewable sources.

From the perspective of a utility regulatory agency such as the Kentucky PSC, energy conservation and efficiency offer benefits for ratepayers and utilities alike.

For the ratepayer, the most obvious and immediate benefit is the opportunity for a smaller monthly bill resulting from decreased energy consumption. This benefit often can be derived at little or no cost to the customer, whether by modest investment in weatherization or something as simple as adjusting a thermostat. Of course, any moderation of costs from reduced usage might, in some programs, be offset by an increase in fixed costs apportioned to the various customer classes, whether by the customer charge or the entire recovery of fixed costs in the “first” block of usage.

Efficiency and conservation also benefit consumers in the long term. Reductions in energy usage, particularly electricity, can defer the need for new infrastructure and thus dampen upward pressure on rates. Consumers who reduce energy usage out of self-interest also are contributing to a collective benefit shared with other ratepayers.

For utilities, the benefits picture is more complicated. After all, a reduction in consumption ultimately becomes a reduction in revenue, and not necessarily with a concomitant reduction in all costs.

This can be less an issue with gas distribution companies than with electric utilities. The cost of natural gas itself – which accounts for about three-fourth’s of a typical residential bill - is simply passed through to consumers, which can reduce the financial impact of a reduction in consumption, provided fixed costs are addressed either in the customer charge or the first block of usage. The variable costs associated with delivery of gas are relatively small when compared to the fixed costs of providing service and maintaining the delivery system.

Electric utilities face a somewhat different situation, because both revenues and cost recovery are more closely tied to the level of consumption. Moreover, fuel costs, while passed through to consumers, account for only about a one-third of a typical residential bill. This can create an unintended disincentive for programs that promote energy efficiency and conservation.

Kentucky’s utility regulatory policy recognizes and addresses this through the statute creating demand-side management programs – KRS 278.285.

This statute allows the PSC to authorize DSM programs based upon several factors, including:

- The proposed program is intended to change consumption patterns
- The costs and benefits of the program and how they are distributed among customer classes
- Whether the DSM program is consistent with the utility's long-range plans
- Whether it disadvantages any customer class
- Whether the plan has been developed by the utility in consultation with the stakeholders, including customers and the Office of Attorney General on behalf of ratepayers
- The availability of the program to customers
- And, finally, the financial ramifications of the plan, including cost recovery in rates, recovery of lost revenue due to decreased sales and financial incentives to encourage implementation.

Demand-side management programs implemented by Kentucky electric utilities include:

- Weatherization programs targeted at low-income consumers
- Energy audits and energy conservation kits
- Direct load-control programs that offer consumers a modest financial incentive in return for permitting the utility to briefly shut off air conditioner compressors or water heaters during periods of peak demand. The shutoffs are limited in both duration and frequency.
- Energy education programs
- High efficiency commercial and residential lighting

In addition to demand-side management programs, the costs of which are often recovered through a tariffed surcharge, several utilities offer other energy conservation programs which are not fully ratepayer-funded. These include incentives for consumers to install geothermal heat pumps or to build new homes that conform to federal EnergyStar standards. It is also worth noting that Kentucky two years ago enacted a net metering statute that is intended to promote the installation of small-scale photovoltaic electric generation.

Kentucky's current regulatory structure is intended to make the promotion of energy efficiency and conservation a viable option for utilities operating in the Commonwealth. The number and scope of conservation and efficiency efforts suggests that the intended effect has been achieved to some degree.

It is also clear that energy efficiency and conservation will need to become an even greater contributor to our overall energy strategy. Demand for the United States is forecasted to increase by as much as 50 percent by mid-century. Ever-stricter environmental constraints are dramatically increasing the cost of new infrastructure, particularly electric generating facilities. The cost of traditional fuels also has increased significantly in recent years. Two other aspects to consider are: the opportunity to reduce dependence on fuel imports thereby enhancing reliable access to the fuels at a reasonable price; and increasing the National Security the United States enjoys.

There is a growing recognition that innovative approaches will be needed to reconcile the seemingly contradictory imperatives to reduce energy consumption while maintaining utility income levels that allow not only continued adequate operation, but also ongoing investment in improved infrastructure.

Earlier this year, the National Association of Regulatory Utility Commissioners endorsed a "National Action Plan for Energy Efficiency" that addresses the desirability of aligning regulatory policies so as to encourage utilities to develop and invest in cost-effective energy efficiency programs. Key elements of this action plan include:

- Removing both regulatory and managerial disincentives to energy efficiency
- Creating incentives for utilities to create and manage successful energy efficiency programs
- Sending price signals to consumers to reduce consumption
- Adopting rate designs that encourage energy efficiency by:
 1. Crafting rates by customer segment to recognize the unique attributes of each customer class for example, (inclining block rates for residential users, time-of-use rates for commercial users, marginal-cost rates for large industrial consumers) as well as peak and off-peak rates for all customers

2. Creating programs that allow all customers to share in the benefits of energy efficiency
3. Offering financing to promote customer investment in energy efficiency
4. Developing rebate programs to induce customers to invest in energy efficiency

The NARUC action plan is an excellent point of departure for a dialogue among the stakeholders. Given the inherent attributes of energy efficiency, its place among the fuel alternatives to be considered will, no doubt, expand. The challenge for public policy makers will be to foster that expansion so as to serve the interests of all concerned.

Thank you very much for your attention.